

FOURCHON

LOCATION: This unit is bordered on the east by Louisiana Highway 1 and Louisiana Highway 3090, on the south by the Gulf of Mexico and on the west by Bayou Lafourche and Belle Pass.

SOILS: Mainly organic layers of peat of various thicknesses underlain by soft dispersed saline clays and mucky clays. Cohen flooded, some organic layers separate from clay substrate and float. Exposed silts and sands on Barrier Beach ridges and immediately along Bayou Lafourche.

VEGETATION: Almost exclusively salt marsh. Some woody vegetation

in upper section on low alluvial ridges along Bayou Lafourche and artificial spoil banks. Small patches of Black Mangrove immediately behind beach ridges immediately along the Gulf. Extensive reclamation of the area immediately adjacent to pass Fourchon near the junction of Bayou Lafourche, immediately behind the beach ridge (Chevron, Gulf, and Tenneco Oil Companies) and else where near the coast has resulted in much spoil bank succession vegetation.

LAND LOSS POTENTIAL:

A. Shoreline Retreat: Measured rate of shoreline retreat (average) is 62.0 feet per year along the gulf shoreline of Lafourche Parish.

B. Land Loss Due to Channel Construction: High because of the nature of soils in the area.

TOPOGRAPHIC FEATURES: Low natural levee along Bayou Lafourche gradually disappearing into the marsh. Louisiana Highway 1 and Louisiana Highway 3090 are built on an artificial embankment along the eastern edge of the study unit. Along the coast, a low beach ridge separates the Gulf of Mexico from the protected marshlands to the rear. There is also a reclamation project associated with Port Fourchon of about 3,600 acres immediately behind the beach ridge complex along the shore. Activities in the area include light industry and recreation. This area, artificially built up, appears to be the only land above five (5) feet MSL. Most of the land lies below plus two (2) feet MSL. The Nicholls State University Marine Biology Laboratory is located at Fourchon. Chevron Oil Company also has oil storage tanks in this study unit.

FLOODING POTENTIAL: The entire area is flood prone. For example, the Hurricane of 1965 (Betsy), which was a U.S. Army Corps of Engineers Project Storm produced a storm tide of 8.8 feet at Grand Isle (the nearest accurate tide record).- However, this storm generated tides up to plus twelve (12) feet MSL further east of this area.

USE OF LAND: The northern portion of this unit is in a semialtered natural state. The area around Port Fourchon and marsh of Fourchon Island is drained and filled for

industrial or marine support facilities. Many pipelines cross the area transporting petroleum products. Louisiana Highway 1 and Louisiana Highway 3090 are the only major roadways and evacuation routes in the area. Bayou Lafourche is the principle waterway of commerce for shipping. Wisner Wildlife Management Area covers portions of the southern part of the study unit surrounding Port Fourchon. Currently attempts are underway to develop Fourchon Island further and also to stabilize the retreating coastline.

A study entitled "Development Potential Study Fourchon Island" by Burk and Associates and UNO Center for Economic Development has detailed parameter for the Fourchon Island section of this EMU.

UNIQUE ECOLOGICAL FEATURES:

A. Geological Features:

1. Beach ridge along coast
2. Deep migratory tidal passes (Belle Pass)

B. Botanical Features:

1. Black Mangrove Area

C. Zoological Features:

1. Seabird/Wading Bird Rookeries:

Bay Marchand Latitude 29 07' Longitude 90° 13'

RECREATIONAL POTENTIAL: The Fourchon area offers potential camping, picnicking, swimming, and has the only sand beach in Lafourche Parish in the Gulf. Hunting, crabbing and fishing are popular along the Fourchon Road.

HISTORIC/CULTURAL/ARCHEOLOGICAL:

A. Historic Sites: None

B. Cultural Sites: None

C. Archeological Sites:

LF 7 Known Shell Midden Pass Fourchon LF 8 Known Shell Midden Bay Marchand LF 34 Known Shell Midden on Bayou Lafourche LF 82 Known Shell Midden near Belle Pass LF 84 Known Shell Midden near Belle Pass LF 85 Known Shell Midden near Belle Pass LF 86 Known Shell Midden near Belle Pass 144

PROBLEMS NOTED:

1. Shoreline retreat and loss of barrier beaches
2. Erosion of marshland due to channelization
3. Flood hazards to Port Fourchon area
4. Problems of secondary development in high hazard areas of marshland behind Fourchon
5. Possibility of industrial waste pollution from the Port Fourchon development and pumping of bilge tanks by ships
6. Damage to estuarine value of marsh due to channelization and pollution
7. Increasing competition for the same resources (commercial fisheries vs. sports fisheries) and for different resources in the same area (oil and gas vs. fisheries)
8. Subsidence problems if land is drained

GOALS

1. Promote continued development of Port Fourchon
2. Provide sufficient levels of services to Port Fourchon so as to eliminate or minimize any environmental degradation caused by the facility
3. Protect and maintain the remainder of the EMU in its present state by discouraging development involving reclamation in areas other than Port Fourchon
4. Reduce shoreline erosion rate
5. Promote recreational access to beach and the Gulf of Mexico

POLICIES FOR PORT FOURCHON

This EMU like Caminada, contains a barrier beach. Immediately behind this beach are stands of Black Mangrove. On and near Fourchon Island lies Port Fourchon, an oil and gas industry service port as well as other oil related industries. The northern part of the unit is primarily saltmarsh with numerous lakes. Concentrated development like the Port are beneficial to coastal zone management in that they minimize areal damage to the environment and they facilitate the provision of water, sewer, and solid waste collection to one concentrated area, thus cutting down pollution. The Port area is already reclaimed, so it is anticipated that little additional destruction of wetland environment will occur. Some erosion prevention has been attempted with the construction of the Fourchon Jetty at the mouth of Bayou Lafourche (Belle Pass). Several proposals have been outlined for development and erosion protection in this area (Burk and Associates, (1980): Development Potential Study, Fourchon Island).

POLICY 1. All General Policies for the Lafourche Coastal Zone shall apply in this EMU unless modified by specific EMU or sub EMU policies stated in this EMU policy statement.

POLICY 2. Continue the orderly development of Port Fourchon within the bounds of the project description as outlined in the Port Fourchon Development Plan.

POLICY 3. Maintain and improve Highway 3090 all the way to the beach to facilitate recreational access to the beach and Gulf of Mexico.

POLICY 4. Promote a cooperative effort of Port Fourchon, the Parish of Lafourche, and local industries to clean up the Fourchon Beach of trash and other debris.

POLICY 5. Channels should not be cut through the Barrier Beach. If it is deemed necessary to breach the barrier beach with a channel, the channel shall be sealed after activity completion and the beach restored to its original elevation and contour and revegetated to its original conditions as much as possible.

POLICY 6. Pipelines cut through the barrier beach are not generally acceptable. If it is deemed necessary to breach the barrier island with a pipeline, the pipeline should be covered after activity completion and the beach restored to its original elevation and contour and revegetated to its original conditions as much as possible.

POLICY 7. Channels dredged for any purpose should be plugged after activities have ceased and spoil spread so as to mitigate the marsh destruction caused by the channels, as per the Lafourche Coastal Zone General Policy 2 and maintained as per General Policy 3. Revegetation of spoil may be required in individual circumstances.

POLICY 8. Spoil of a silty or sandy nature may, depending on individual circumstances be required to be hauled to the barrier beach for deposition there as part of mitigation procedures associated with channel construction in this EMU.

POLICY 9. Black Mangrove areas should be protected from destruction from any permitted activity. These plants help stabilize the areas immediately behind the coastal beach ridge and are important in the retardation of erosion. To pipelines or channels should traverse these areas unless the disturbed zone is refilled and revegetated after completion of the permitted activity.

POLICY 10. Existing channels and lakes should be used to access any oil and gas exploration sites as much as possible to avoid unnecessary channelization through marshlands.

POLICY 11. Recreational facilities should be developed along the Fourchon Beach to manage its recreational potential. This includes the installing of shelters, tables, trash receptacles as well as regular trash pick-ups and sanitary facilities.

POLICY 12. Permanent human habitation or recreational dwellings should be discouraged on Fourchon Island or anywhere near the beach. The area is eroding and is quite fragile. There is a lack of water, solid waste, and sewerage facilities and the area is subject to severe wind and storm surge potential in the event of tropical storms or hurricanes.

POLICY 13. Recreational dwellings and facilities along Louisiana Highway 1 and Louisiana Highway 3090 are acceptable, as long as a method for sewerage treatment and solid waste disposal is available.

POLICY 14. Open pit mining for sand should not be permitted near the barrier beach due to the value this area has as a buffer against storms.

Besides these guidelines, all coastal use guidelines as stated in the F.E.I.S. of the Louisiana Coastal Zone Management Program shall apply to this EMU.

there EMU policies refer to a "use of state concern", the policies are intended only as recommendations to the state program managers and are not legally binding on the permit applicant or the state CZM program.
